N431 Care Plan # 2

Lakeview College of Nursing

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**Demographics (3 points)**

| Date of Admission | Client Initials | Age | Gender |
|---|---|---|---|
| 3/19/2024 | DLK | 68-years-old | Female |
| **Race/Ethnicity** | **Occupation** | **Marital Status** | **Allergies** |
| Caucasian | Retired | Widow | Sulfa (sulfonamide, antibiotics) |
| **Code Status** | **Height** | **Weight** | |
| DNR/DNI | 162.6 cm (5 ft. 4 in.) | 134.5 kg (296 lb. 8 oz.) | |

**Medical History (5 Points)**

**Past Medical History:** Anemia, anxiety, astigmatism with presbyopia, colon cancer, cataract, coronary atherosclerosis, diabetes mellitus type 1, hypertension (HTN), hyperlipidemia, ocular hypertension (HTN), open-angle glaucoma, proteinuria, pseudophakia, and retinopathy.

**Past Surgical History:** Left and right heart Cath, colonoscopy, upper gastrointestinal endoscopy, cataract extraction, and sigmoid resection.

**Family History:** Cancer – maternal grandfather, maternal uncle, paternal grandmother, and paternal uncle; diabetes mellitus – brother, father, and sister; and heart failure – mother and brother.

**Social History (tobacco/alcohol/drugs including frequency, quantity and duration of use):** Former smoker of cigarettes one pack a day, quit smoking five years ago. Do not drink or do drugs.

**Assistive Devices:** Walker.

**Living Situation:** Lives at home by herself.

**Education Level:** Associate degree.

**Admission Assessment**

**Chief Complaint (2 points):** Shortness of breath (SOB)

**History of Present Illness – OLD CARTS (10 points):**

A 68-year-old female was present with shortness of breath (SOB) and right elbow pain that worsened since yesterday. The patient was discharged from a different hospital on 3/18/2024 and then readmitted to the current hospital on 3/19/2024. The patient states that she is weak and incredibly short of breath and mentions significant right elbow pain. The patient sat up straight when they first started feeling shortness of breath (SOB) to try and breathe better, but it didn't help. The patient took Tylenol to relieve her right elbow pain.

## Primary Diagnosis

**Primary Diagnosis on Admission (2 points):** Chronic heart failure (CHF).

**Secondary Diagnosis (if applicable):** Acute hypoxic respiratory insufficiency.

**Pathophysiology of the Disease, APA format (20 points):**

Heart failure is a common condition caused by the weakening of the ventricle, which makes it unstable and unable to pump enough blood to satisfy the tissues' demands. The percentage of blood pushed out of the left ventricle with each contraction is known as the left ventricular ejection fraction, and it is used to characterize the heart. A heart's left ventricular ejection fraction, or the proportion of blood that leaves the ventricle with each contraction is used to identify heart failure. Diastolic dysfunction refers to heart failure brought on by the ventricle's incapacity to relax, expand, and fill with enough blood volume. In contrast, systolic dysfunction relates to heart failure brought on by inadequate ejection of blood volume into the arterial circulation. Acute or chronic, systolic or diastolic dysfunction, high-output or low-output, right- or left-sided, and forward- or backward-firing heart failure are some of the several ways that heart failure can be characterized. The heart is a single muscular organ that depends on each chamber's strength, rhythm, and efficiency. In heart failure, both ventricles are eventually

impacted by the biochemical and pressure changes that affect the myocardial. Late in the illness,

a mixed clinical presentation of signs and symptoms occurs when a defect or weakening on one

side of the heart gradually affects the opposite side (Capriotti, 2020). The 68-year-old female

patient was admitted to inpatient care because of shortness of breath (SOB) related to her chronic

heart failure.

Pulmonary crackers, signs of pulmonary edema, jugular vein distention at rest, dyspnea

during exertion, orthopnea, weak peripheral pulses, peripheral edema, and tachycardia are signs

and symptoms of heart failure (Capriotti, 2020). The patient's symptoms include shortness of

breath (SOB), pulmonary edema, cough, and fatigue.

An X-ray of the chest is required to identify the cardiac shadow and pulmonary fields to

diagnose heart failure. Heart failure frequently results in cardiomegaly or heart enlargement. A

heart failure electrocardiogram (ECG) might show several abnormalities. The waveforms

obtained from the chest leads show LVH or enlargement. One kind of noninvasive sonography

that can show the anatomy and function of the heart is an echocardiogram. Heart failure and

other conditions cause an increase in the blood level of brain natriuretic peptide (BNP)

(Capriotti, 2020). The patient received a chest x-ray, electrocardiogram, and an echocardiogram,

along with monitoring BNP levels to confirm chronic heart failure.

Heart failure patients can choose from a variety of therapeutic options. A low-carb diet,

quitting smoking, and upping physical exercise are simple lifestyle alterations promoting health.

Limiting fluid, salt, cholesterol, and alcohol consumption is recommended for patients with heart

failure. A treatment's mainstay is a pharmaceutical medication, such as an ACE inhibitor, beta-

blocker, or diuretic. Through lowering blood volume and salt retention, diuretics—also known as

diuresis—increase the body's water balance. Reductions in the reabsorption of water and salt into

the circulation are brought about by modifications induced at the kidney's nephrons (Capriotti,

2020). The patient is on a cardio diet, takes diuretics, and is encouraged to ambulate more.

**Pathophysiology References (2) (APA):**

Capriotti, T. M. (2020). *Davis advantage for pathophysiology: Introductory concepts and clinical perspectives* (2nd ed.). F. A. Davis Company

**Laboratory Data (15 points)**

**CBC <mark>Highlight All Abnormal Labs</mark>—Explanations must be in complete sentences and contain in-text citations in APA format.**

| Lab | Normal Range | Admission Value | Today's Value | Reason for Abnormal Value |
|---|---|---|---|---|
| **RBC** | 4.40-5.80 10(6) | <mark>3.23 10(6)</mark> | <mark>3.56 10(6)</mark> | Low red blood cell count prevents oxygen from reaching the body's tissues, which is known as anemia (Mayo Clinic, 2023). The patient has anemia which can cause low levels of RBC. |
| **Hgb** | 13.0-16.5 g/dL | <mark>9.1 g/dL</mark> | <mark>10.1 g/dL</mark> | Red blood cells include a protein called hemoglobin, which transports oxygen to the body's tissues and organs. Decreased hemoglobin also indicates decreased red blood cell counts (Mayo Clinic, 2022). The patient's anemia causes low levels of hemoglobin (Hgb). |
| **Hct** | 38.0-50.0% | <mark>29.4%</mark> | <mark>32.4%</mark> | The hematocrit test determines the amount of red blood cells in the blood. The body uses red blood cells to transport oxygen. (Mayo Clinic, 2023). The patient's anemia can cause low levels of hematocrit (Hct). |
| **Platelets** | 140-440 mcL 10(3) | 192 mcL 10(3) | 249 mcL 10(3) | |
| **WBC** | 4.00-12.00 mcL 10(3) | 5.94 mcL 10(3) | 8.57 mcL 10(3) | |
| **Neutrophils** | 40.0-68.0% | 4.09% | 6.89% | |

| Lymphocytes | 19.0-49.0% | 19.2% | 23.6% | |
|---|---|---|---|---|
| Monocytes | 3.0-13.0% | 8.1% | 12.5% | |
| Eosinophils | 0.0-8.0% | 0.0% | 1.5% | |
| Bands | 0.0-0.1% | N/A | N/A | |

**Chemistry** ==Highlight All Abnormal Labs==**—Explanations must be in complete sentences and contain in-text citations in APA format.**

| Lab | Normal Range | Admission Value | Today's Value | Reason For Abnormal |
|---|---|---|---|---|
| **Na-** | 136-145 mmol/L | ==134 mmol/L== | ==135 mmol/L== | Increased fluid retention from congestive heart failure (CHF) can dilute the body's sodium levels overall by raising their concentration (Mayo Clinic, 2022). Low sodium (Na-) levels are the result of the patient's fluid retention due to congestive heart failure (CHF). |
| **K+** | 3.5-5.1 mmol/L | 4.3 mmol/L | 3.9 mmol/L | |
| **Cl-** | 98-107 mmol/L | 98 mmol/L | 99 mmol/L | |
| **CO2** | 22-30 mmol/L | 27.0 mmol/L | 30.0 mmol/L | |
| **Glucose** | 70-99 mg/dL | ==231 mg/dL== | ==300 mg/dL== | When blood sugar levels are higher than 200 mg/dL, it is referred to as hyperglycemia. (Mayo Clinic, 2022). The patient has hyperglycemia due to type 1 diabetes. |
| **BUN** | 8-26 mg/dL | ==45 mg/dL== | ==69 mg/dL== | The blood urea nitrogen (BUN) test explains how well the kidneys work (Mayo Clinic, 2023). The patient has type 1 diabetes is elevated BUN levels are common with patients with diabetes. |
| **Creatinine** | 0.70-1.30 mg/dL | ==1.87 mg/dL== | ==1.64 mg/dL== | Creatinine test measure how well the kidneys are performing their job of filtering waste in the blood (Mayo Clinic, 2023). The patient |

| Lab Test | Normal | Value on | Today's | Reason for Abnormal |
|---|---|---|---|---|
|  |  |  |  | BUN level is high which makes the creatinine levels to evaluate as well. |
| **Albumin** | 3.5-5.0 g/dL | <mark>2.9 g/dL</mark> | N/A | Low albumin levels are when the body doesn't produce enough albumin protein that's responsible for keeping fluid in the blood vessels (Cleveland Clinic, 2022). Low albumin can be cause by a medical condition such as chronic heart failure. |
| **Calcium** | 8.7-10.5 mg/dL | 8.9 mg/dL | 8.9 mg/dL |  |
| **Mag** | 1.6-2.6 mg/dL | N/A | 2.2 mg/dL |  |
| **Phosphate** | 2.5-4.5 mg/dL | N/A | N/A |  |
| **Bilirubin** | 0.2-1.2 mg/dL | 1.1 mg/dL | N/A |  |
| **Alk Phos** | 4.0-15.0 U/L | N/A | N/A |  |
| **AST** | 5-34 U/L | 20 U/L | N/A |  |
| **ALT** | 0-55 U/L | 11 U/L | N/A |  |
| **Amylase** | 29-103 U/L | N/A | N/A |  |
| **Lipase** | 11-83 U/L | N/A | N/A |  |
| **Lactic Acid** | 0.5-2.0 mmol/L | N/A | N/A |  |
| **Troponin** | 136-145 mmol/L | 138 mmol/L | N/A |  |
| **CK-MB** | 3.5-5.1 mmol/L | N/A | N/A |  |
| **Total CK** | 98-107 mmol/L | N/A | N/A |  |

**Other Tests** <mark>Highlight All Abnormal Labs</mark>**—Explanations must be in complete sentences and contain in-text citations in APA format.**

| Lab Test | Normal | Value on | Today's | Reason for Abnormal |
|---|---|---|---|---|

|  | Range | Admission | Value |  |
|---|---|---|---|---|
| **INR** | 0.8-1.1 sec. | N/A | N/A |  |
| **PT** | 10.1-13.1 sec. | N/A | N/A |  |
| **PTT** | 25-36 sec. | N/A | N/A |  |
| **D-Dimer** | 0-6 22 ng/mL | N/A | N/A |  |
| **BNP** | <100 pg/mL | <mark>396.0 pg/mL</mark> | N/A | B-type natriuretic peptide (BNP) tells how the heart is working. It measures the levels of a protein called BNP in the bloodstream (Cleveland Clinic, 2022). The patient's BNP is elevated because she had heart failure. |
| **HDL** | >40 mg/dL | N/A | N/A |  |
| **LDL** | <130 mg/dL | N/A | N/A |  |
| **Cholesterol** | <200 mg/dL | N/A | N/A |  |
| **Triglycerides** | <150 | N/A | N/A |  |
| **Hgb A1c** | 4.0-6.0% | N/A | N/A |  |
| **TSH** | 0.270-4.200 mlU/L | N/A | N/A |  |

**Urinalysis <mark>Highlight All Abnormal Labs</mark>—Explanations must be in complete sentences and contain in-text citations in APA format.**

| Lab Test | Normal Range | Value on Admission | Today's Value | Reason for Abnormal |
|---|---|---|---|---|
| **Color & Clarity** | Yellow/Clear | N/A | N/A |  |
| **pH** | 5.0-9.0 | N/A | N/A |  |
| **Specific Gravity** | 1.0003-1.030 | N/A | N/A |  |
| **Glucose** | Negative | N/A | N/A |  |
| **Protein** | Negative | N/A | N/A |  |
| **Ketones** | Negative | N/A | N/A |  |

| WBC | Negative (0-5/hpf) | N/A | N/A | |
|---|---|---|---|---|
| RBC | Negative (0.2/hpf) | N/A | N/A | |
| Leukoesterase | Negative | N/A | N/A | |

**Arterial Blood Gas <mark>Highlight All Abnormal Labs</mark>—Explanations must be in complete sentences and contain in-text citations in APA format.**

| Test | Normal Range | Value on Admission | Today's Value | Explanation of Findings |
|---|---|---|---|---|
| pH | 7.350 – 7.450 | N/A | N/A | |
| PaO2 | 80.0 – 100.0 mmHg | N/A | N/A | |
| PaCO2 | 35.0 – 45.0 mmHg | N/A | N/A | |
| HCO3 | 22.0 – 26.0 mmol/L | N/A | N/A | |
| SaO2 | Negative | N/A | N/A | |

**Cultures <mark>Highlight All Abnormal Labs</mark>—Explanations must be in complete sentences and contain in-text citations in APA format.**

| Test | Normal Range | Value on Admission | Today's Value | Explanation of Findings |
|---|---|---|---|---|
| Urine Culture | Negative | N/A | N/A | |

| Blood Culture | Negative | N/A | N/A | |
|---|---|---|---|---|
| Sputum Culture | Negative | N/A | N/A | |
| Stool Culture | Negative | N/A | N/A | |

**Lab Correlations Reference (1) (APA):**

Mayo Clinic. (2023, August 5). *Blood urea nitrogen (BUN) test*. Mayoclinic.org.

https://www.mayoclinic.org/tests-procedures/blood-urea-nitrogen/about/pac-20384821

## Diagnostic Imaging

**All Other Diagnostic Tests (5 points):**

X-ray chest AP or PA. Impression: the heart is enlarged, and diffuse bilateral reticular pulmonary

opacities, which are like prior, could be due to interstitial pulmonary edema rather than

pneumonia and multilevel degenerative change.

X-ray right elbow complete. Impression: suspected joint effusion without definite acute fracture

identified radiographically.

Ultrasonography US abdomen right upper quadrant. Impression: diffuse fatty infiltration in the

liver.

**Diagnostic Test Correlation (5 points):** The patient was given a chest x-ray for dyspnea. The x-

ray shows pulmonary edema. A disorder called pulmonary edema is brought on by an excess of

fluid in the lungs. Breathing becomes challenging when this fluid builds up in the lungs' many air

sacs (Mayo Clinic, 2022). An X-ray of the right elbow was followed. The x-ray of the elbow

shows an acute fracture, which is a broken bone. Lastly, an ultrasonography of the right upper

abdomen showed a fatty liver when excess fat accumulates in the liver.

**Diagnostic Test Reference (1) (APA):**

Mayo Clinic. (2022, May 27). *Pulmonary edema - symptoms and causes*. Mayo Clinic; Mayo

Clinic. https://www.mayoclinic.org/diseases-conditions/pulmonary-edema/symptoms-

causes/syc-20377009

## Current Medications (10 points, 1 point per completed med)
### *10 <u>different</u> medications must be completed*

## Home Medications (5 required)

| Brand/Generic | Acetaminophen (Tylenol) | Calcium carbonate (TUMS) | Aspirin (Bayer) | Insulin glargine (Lantus) | Levothyroxine (Euthyrox) |
|---|---|---|---|---|---|
| Dose | 500 mg | 500 mg | 81 mg | 40 units | 25 mg |
| Frequency | PRN Q4H | PRN Q6H | Daily | BID | Daily |
| Route | Oral | Oral | Oral | Subcutaneous | Oral |
| Classification | Pharmacology Class: analgesics (Jones & Bartlett, 2020). <br><br> Therapeutic Class: antipyretics, nonopioid analgesics (Jones & Bartlett, 2020). | Pharmacology Class: antacids (Jones & Bartlett, 2020). <br><br> Therapeutic Class: mineral and electrolyte replacements/supplements (Jones & Bartlett, 2020). | Pharmacology Class: salicylates, nonsteroidal anti-inflammatory drugs (NSAIDs) (Jones & Bartlett, 2020). <br><br> Therapeutic Class: antiplatelet agents, antipyretics, nonopioid analgesics (Jones & Bartlett, 2020). | Pharmacology Class: pancreatics (Jones & Bartlett, 2020). <br><br> Therapeutic Class: hormones, antidiabetics (Jones & Bartlett, 2020). | Pharmacology Class: thyroid preparation (Jones & Bartlett, 2020). <br><br> Therapeutic Class: hormones (Jones & Bartlett, 2020). |
| Mechanism of Action | Inhibits the synthesis of prostaglandins that may serve as mediators of pain and fever, primarily in the CNS (Jones & Bartlett, 2020). | Essential for nervous, muscular, and skeletal systems. Maintain cell membrane and capillary permeability (Jones & Bartlett, 2020). | Produce analgesia and reduce inflammation and fever by inhibiting the production of prostaglandins. Decreases platelet aggregation (Jones & Bartlett, 2020). | Lowers blood glucose by stimulating glucose uptake in skeletal muscle and fat, inhibiting hepatic glucose production (Jones & Bartlett, 2020). | Synthetic form of thyroxine (T4). Replacement of or supplementation to endogenous thyroid hormones (Jones & Bartlett, 2020). |
| Reason Client Taking | Relief mild to moderate pain (Jones & Bartlett, 2020). | Relief of acid indigestion or heartburn (Jones & Bartlett, 2020). | Lower the risk of transient ischemic attacks and MI (Jones & Bartlett, 2020). | Control hyperglycemia with type 1 diabetes (Jones & Bartlett, 2020). | Improve worsening of cardiovascular function (Jones & Bartlett, 2020). |
| Contraindications (2) | Dyspnea (Jones & Bartlett, 2020). <br><br> Hypertension (Jones & Bartlett, 2020). | Arrhythmias (Jones & Bartlett, 2020). <br><br> Constipation (Jones & Bartlett, 2020). | Anemia (Jones & Bartlett, 2020). <br><br> Edema (Jones & Bartlett, 2020). | Hypoglycemia (Jones & Bartlett, 2020). <br><br> Hypokalemia (Jones & Bartlett, | Arrhythmias (Jones & Bartlett, 2020). <br><br> Angina (Jones & Bartlett, 2020). |

| | | | | 2020). | |
|---|---|---|---|---|---|
| **Side Effects/Adverse Reactions (2)** | Fatigue (Jones & Bartlett, 2020).<br><br>Nausea (Jones & Bartlett, 2020). | Bradycardia (Jones & Bartlett, 2020).<br><br>Headache (Jones & Bartlett, 2020). | Tinnitus (Jones & Bartlett, 2020).<br><br>Hepatotoxicity (Jones & Bartlett, 2020). | Hypokalemia (Jones & Bartlett, 2020).<br><br>Hypoglycemia (Jones & Bartlett, 2020). | Hyperthyroidism (Jones & Bartlett, 2020).<br><br>Sweating (Jones & Bartlett, 2020). |
| **Nursing Considerations (2)** | Administer with a full glass of water (Jones & Bartlett, 2020).<br><br>When combined with opioids do not exceed the maximum daily limits (Jones & Bartlett, 2020). | When used as an antacid, assess for heartburn, indigestion, and abdominal pain (Jones & Bartlett, 2020).<br><br>Observe patient closely for symptoms of hypocalcemia (Jones & Bartlett, 2020). | Monitor for signs and symptoms of dress periodically during therapy (Jones & Bartlett, 2020).<br><br>Monitor for onset of tinnitus, headache, hyperventilation, agitation, mental confusion, and lethargy (Jones & Bartlett, 2020). | Assess for symptoms of hypoglycemia (Jones & Bartlett, 2020).<br><br>Monitor body weight periodically. Changes in weight may necessitate changes in insulin dose (Jones & Bartlett, 2020). | Administer with a full glass of water, on an empty stomach, 30-60 min before breakfast, to prevent insomnia (Jones & Bartlett, 2020).<br><br>Initial dose is low in geriatric and cardiac patients (Jones & Bartlett, 2020). |
| **Key Nursing Assessment(s)/Lab(s) Prior to Administration** | Assess type, location, and intensity prior to and 30-6- min following administration (Jones & Bartlett, 2020).<br><br>May alter results of blood glucose monitoring (Jones & Bartlett, 2020). | Administer calcium carbonate 30-90 min after meals and at bedtime (Jones & Bartlett, 2020).<br><br>Monitor serum calcium or ionized calcium (Jones & Bartlett, 2020). | Assess for pain and fever prior to administration (Jones & Bartlett, 2020).<br><br>Monitor hepatic function before antirheumatic therapy (Jones & Bartlett, 2020). | Assess blood glucose level prior to administration (Jones & Bartlett, 2020).<br><br>Monitor serum potassium (Jones & Bartlett, 2020) | Assess apical pulse and BP prior to and periodically during therapy (Jones & Bartlett, 2020).<br><br>Monitor blood and urine glucose in diabetic patients (Jones & Bartlett, 2020). |
| **Client Teaching Needs (2)** | May be taken with food or on an empty stomach (Jones & Bartlett, 2020).<br><br>Advise patient to discontinue acetaminophen and notify health care professional if rash occurs (Jones & Bartlett, 2020). | Advise patient that calcium carbonate may cause constipation (Jones & Bartlett, 2020).<br><br>Encourage patients to maintain a diet adequate in vitamin D (Jones & Bartlett, 2020). | Instruct patient to take aspirin with a full glass of water and to remain in an upright position for 15-30 min after administration (Jones & Bartlett, 2020).<br><br>Advise patient to report tinnitus, unusual bleeding of gums, bruising, or black tarry stools (Jones & Bartlett, 2020). | Instruct patient on proper technique for administration (Jones & Bartlett, 2020).<br>Explain to patient that this medication controls hyperglycemia but does not cure diabetes.<br>Therapy is long term (Jones & Bartlett, 2020). | Instruct patient to take medication as directed as the same time each day (Jones & Bartlett, 2020).<br>Advise patient to take 4 hours apart from antacids, iron, and calcium (Jones & Bartlett, 2020). |

## Hospital Medications (5 required)

| Brand/Generic | Apixaban (Eliquis) | Insulin lispro (Humalog) | Allopurinol (Zyloprim) | Atorvastatin (Lipitor) | Furosemide (Lasix) |
|---|---|---|---|---|---|
| **Dose** | 5 mg | 1-20 units | 100 mg | 40 mg | 10mg/hr |
| **Frequency** | Daily | Q4H | Daily | At bedtime | Continuous |

| Route | Oral | Subcutaneous | Oral | Oral | Intravenous |
|---|---|---|---|---|---|
| **Classification** | Pharmacologic Class: factor Xa inhibitors (Jones & Bartlett, 2020).<br><br>Therapeutic Class: anticoagulants (Jones & Bartlett, 2020). | Pharmacologic Class: pancreatics (Jones & Bartlett, 2020).<br><br>Therapeutic Class: antidiabetics, hormones (Jones & Bartlett, 2020). | Pharmacologic Class: xanthine oxidase inhibitors (Jones & Bartlett, 2020).<br><br>Therapeutic Class: antigout agents, antihyper uricemics (Jones & Bartlett, 2020). | Pharmacologic Class: HMG-CoA reductase inhibitors (Jones & Bartlett, 2020).<br><br>Therapeutic Class: lipid-lowering agents (Jones & Bartlett, 2020). | Pharmacologic Class: loop diuretics (Jones & Bartlett, 2020).<br><br>Therapeutic Class: diuretics (Jones & Bartlett, 2020). |
| **Mechanism of Action** | Acts as a selective, reversible site inhibitor of factor Xa, inhibiting both free and bound factors (Jones & Bartlett, 2020). | Lowers blood glucose by stimulating glucose uptake in skeletal muscle and fat, inhibiting hepatic glucose production (Jones & Bartlett, 2020). | Inhibits the production of uric acid by inhibiting the action of xanthine oxidase (Jones & Bartlett, 2020). | Inhibits 3-hydroxy-3-methylglutaryl-coenzyme A (HMG-CoA) reductase, an enzyme that is responsible for catalyzing an early step in the synthesis of cholesterol (Jones & Bartlett, 2020). | Inhibits the reabsorption of sodium and chloride from the loop of Henie and distal renal tubule. Increases renal excretion of water, sodium, chloride, magnesium, potassium, and calcium (Jones & Bartlett, 2020). |
| **Reason Client Taking** | Treatment and prevention of DVT or PE. | Treatment for type 1 diabetes mellitus. | Lower the uric acid in the blood. | Treatment for hyperlipidemia | Remove excess fluid from the body. |
| **Contraindications (2)** | Tachycardia (Jones & Bartlett, 2020).<br><br>Bruising (Jones & Bartlett, 2020). | Hypoglycemia (Jones & Bartlett, 2020).<br><br>Hypokalemia (Jones & Bartlett, 2020). | Heart failure (Jones & Bartlett, 2020).<br><br>Hypertension (Jones & Bartlett, 2020). | Hyperglycemia (Jones & Bartlett, 2020).<br><br>Peripheral edema (Jones & Bartlett, 2020). | Anemia (Jones & Bartlett, 2020).<br><br>Constipation (Jones & Bartlett, 2020). |
| **Side Effects/Adverse Reactions (2)** | Bleeding (Jones & Bartlett, 2020).<br><br>Anaphylaxis (Jones & Bartlett, 2020) | Lipodystrophy (Jones & Bartlett, 2020).<br><br>Erythema (Jones & Bartlett, 2020). | Drowsiness (Jones & Bartlett, 2020).<br><br>Bradycardia (Jones & Bartlett, 2020). | Insomnia (Jones & Bartlett, 2020).<br><br>Chest pain (Jones & Bartlett, 2020). | Pruritus (Jones & Bartlett, 2020).<br><br>Hearing loss (Jones & Bartlett, 2020). |
| **Nursing Considerations (2)** | When converting from warfarin, discontinue warfarin and start apixaban when INR is <20 (Jones & Bartlett, 2020).<br><br>For surgery, discontinue apixaban at least 48 hours before procedure (Jones & Bartlett, 2020). | Assess for symptoms of hypoglycemia (cold sweats, unsteady gait, tremor, confusion, etc.) (Jones & Bartlett, 2020).<br><br>Monitor blood glucose every 3-6 hours (Jones & Bartlett, 2020). | Monitor for joint pain and swelling (Jones & Bartlett, 2020)<br><br>May be given after milk or meals to minimize gastric irritation (Jones & Bartlett, 2020) | Obtain a diet history, especially regarding fat consumption (Jones & Bartlett, 2020).<br>If patient develops muscle tenderness during therapy, monitor creatine kinase (CK) levels (Jones & Bartlett, 2020). | Assess fluid status. Monitor daily weight, intake, and output ratios (Jones & Bartlett, 2020).<br><br>Assess patient for tinnitus and hearing loss (Jones & Bartlett, 2020). |
| **Key Nursing Assessment(s)/Lab(s) Prior to Administration** | Assess patient for symptoms of stroke, DVT, PE, bleeding, or peripheral vascular disease periodically during therapy (Jones & Bartlett, 2020).<br><br>Monitor for toxicity and overdose (Jones & Bartlett, 2020). | Monitor blood glucose level prior administration (Jones & Bartlett, 2020)<br><br>Monitor A1C every 3-6 month to determine effectiveness (Jones & Bartlett, 2020). | Monitor intake and output ratios to ensure patient maintains adequate fluid intake (Jones & Bartlett, 2020).<br><br>Monitor hematologic, renal, and liver function test before and during therapy (Jones & Bartlett, | Administer only on an empty stomach (1 hour before or 2 hours after a meal) (Jones & Bartlett, 2020).<br><br>Monitor liver function test prior to initiation of therapy (Jones & | Monitor BP and pulse before and during administration (Jones & Bartlett, 2020).<br><br>Monitor electrolytes, renal, and hepatic function, serum glucose, and uric |

| | | | | | |
|---|---|---|---|---|---|
| | | | 2020) | Bartlett, 2020). | acid levels (Jones & Bartlett, 2020). |
| **Client Teaching Needs (2)** | Inform patient that they may bruise and bleed more easily or longer than usual (Jones & Bartlett, 2020).<br><br>Instruct patient to take apixaban as directed (Jones & Bartlett, 2020). | Instruct patient on signs and symptoms of hypoglycemia and hyperglycemia (Jones & Bartlett, 2020)<br><br>Instruct patient in proper testing of serums glucose and ketones (Jones & Bartlett, 2020) | Instruct patient to continue taking allopurinol along with an NSAID (Jones & Bartlett, 2020)<br><br>Instruct patient to report skin rash, blood in urine, and influenza symptoms (Jones & Bartlett, 2020). | Advise patient that this medication should be used in conjunction with dies restrictions (Jones & Bartlett, 2020).<br><br>Instruct patient to notify health care professional if unexplained muscle pain, tenderness, or weakness (Jones & Bartlett, 2020). | Advise diabetic patients to monitor blood glucose closely (Jones & Bartlett, 2020).<br><br>Caution patient to change position slowly to minimize orthostatic hypotension (Jones & Bartlett, 2020). |

## Medications Reference (1) (APA):

Jones & Bartlett Learning. (2020). *2021 nurse's drug handbook* (20th ed.). Jones & Bartlett
    Learning.


## Assessment

## Physical Exam (18 points) – <mark>HIGHLIGHT ALL PERTINENT ABNORMAL FINDINGS</mark>

| | |
|---|---|
| **GENERAL:**<br>**Alertness:**<br>**Orientation:**<br>**Distress:**<br>**Overall appearance:** | The patient was alert and oriented to person, place, time, and situation. The overall appearance was well-groomed. The patient wasn't in distress. |
| **INTEGUMENTARY:**<br>**Skin color:**<br>**Character:**<br>**Temperature:**<br>**Turgor:**<br>**Rashes:**<br>**Bruises:**<br>**Wounds:** .<br>**Braden Score:**<br>**Drains present: Y☐      N ☒**<br>    **Type:** | The patient's skin was dry, warm, pink, and intact. No rashes, lesions, or bruising. Skin turgor normal mobility.<br><br>Braden score: 19 |
| **HEENT:**<br>**Head/Neck:**<br>**Ears:**<br>**Eyes:**<br>**Nose:**<br>**Teeth:** | The head and neck are symmetrical. The trachea is midline without deviation. Ears are symmetrical and have no visible drainage. <mark>The patient has a right ear laceration</mark> that is being treated with antibiotic ointment. Dressing: open |

| | |
|---|---|
| | to air. Eyes were bilateral sclera white with no visible drainage from eyes. PERRLA bilaterally. The conjunctiva was pink and moist. The nose is midline with no visible bleeding. <mark>The patient has missing and decayed teeth.</mark> |
| **CARDIOVASCULAR:**<br>**Heart sounds:**<br>**S1, S2, S3, S4, murmur etc.**<br>**Cardiac rhythm (if applicable):**<br>**Peripheral Pulses:**<br>**Capillary refill:**<br>**Neck Vein Distention:   Y ☐   N ☒**<br>**Edema Y ☐   N ☒**<br>**Location of Edema:** | Clear S1 and S2 without murmurs, gallops, or rubs. <mark>Irregular rate and rhythm upon auscultation.</mark><br><br>Peripheral pulses are palpable. Capillary refills in less than 3 seconds. No edema. |
| **RESPIRATORY:**<br>**Accessory muscle use:   Y☐   N ☒**<br>**Breath Sounds: Location, character** | Normal respiratory rate and rhythm. <mark>Diminished breath sounds upon auscultation.</mark> Breathing is non-labored. Cough and deep breathing were done independently. |
| **GASTROINTESTINAL:**<br>**Diet at home:**<br>**Current Diet**<br>**Height:**<br>**Weight:**<br>**Auscultation Bowel sounds:**<br>**Last BM:**<br>**Palpation: Pain, Mass etc.:**<br>**Inspection:**<br>   **Distention:**<br>   **Incisions:**<br>   **Scars:**<br>   **Drains:**<br>   **Wounds:**<br>**Ostomy:   Y ☐   N ☒**<br>**Nasogastric:   Y ☐   N ☒**<br>   **Size:**<br>**Feeding tubes/PEG tube   Y ☐   N ☒**<br>   **Type:** | The patient had a regular diet when she was home but currently placed on a cardiac diet.<br>162.6 cm (5 ft. 4 in.)<br>134.5 kg (296 lb. 8 oz.)<br>Patient has normal bowel sounds in all four quadrants with occasional borborygmus heard. Abdomen was nontender and soft when palpated but not distended with no drains, incisions, or wounds. Last BM not reported. |
| **GENITOURINARY:**<br>**Color:**<br>**Character:**<br>**Quantity of urine:**<br>**Pain with urination:  Y ☐   N ☒** | Patient had a 300 mL urine voided. Urine was yellow and clear. Patient is wearing an absorbent pad. No pain or urgency during voiding. |

| | |
|---|---|
| **Dialysis: Y ☐ N ☒**<br>**Inspection of genitals:**<br>**Catheter: Y ☐ N ☒**<br> **Type:**<br> **Size:** | |
| **MUSCULOSKELETAL:**<br>**Neurovascular status:**<br>**ROM:**<br>**Supportive devices:**<br>**Strength:**<br>**ADL Assistance: Y☐ N ☐**<br>**Fall Risk: Y ☐ N☒**<br>**Fall Score:**<br>**Activity/Mobility Status:**<br>**Independent (up ad lib) ☐**<br>**Needs assistance with equipment ☐**<br>**Needs support to stand and walk ☒** | Neurovascular status is intact. No pain, paresthesia, paralysis, pulselessness, and pallor. All extremities have full range of motion (ROM) with generalized weakness. <mark>Strength is diminished.</mark> Hand grips and pedal push and pulls demonstrated normal and equal strength.<br><br>Fall Score: 14<br>The patient uses her walker when needed. |
| **NEUROLOGICAL:**<br>**MAEW: Y ☒ N☐**<br>**PERLA: Y ☐ N☐**<br>**Strength Equal: Y ☒ N ☐ if no -**<br>**Legs ☐ Arms ☐ Both ☐**<br>**Orientation:**<br>**Mental Status:**<br>**Speech:**<br>**Sensory:**<br>**LOC:** | Patient was alert and oriented to person, time, and her surroundings x4. The patient can move all extremities well with <mark>some generalized weakness.</mark> Pupils are equal round and reactive to light. |
| **PSYCHOSOCIAL/CULTURAL:**<br>**Coping method(s):**<br>**Developmental level:**<br>**Religion & what it means to pt.:**<br>**Personal/Family Data (Think about home environment, family structure, and available family support):** | The patient uses television as a coping mechanism. She earned an associate degree from college. The patient is not religious. She spends time talking to her daughter while receiving inpatient care as they are close. |

**Vital Signs, 2 sets (5 points) –** <mark>**HIGHLIGHT ALL ABNORMAL VITAL SIGNS**</mark>

| Time | Pulse | B/P | Resp Rate | Temp | Oxygen |
|---|---|---|---|---|---|
| 0743 | <mark>39</mark> | 94/62 | 16 | 36.6 C (97.9 F)<br><br>Axillary | 96 Room air |
| 1108 | <mark>40</mark> | 128/62 | 18 | 36.1 C (97) | 93 Room air |

| | | | | Oral | |
|---|---|---|---|---|---|
| | | | | | |

**Vital Sign Trends:** The pulse was high throughout the morning.

## Pain Assessment, 2 sets (2 points)

| Time | Scale | Location | Severity | Characteristics | Interventions |
|---|---|---|---|---|---|
| 0840 | Numerical scale 1-10 | Right elbow | 3 | Tenderness | Acetaminophen (Tylenol) |
| 1314 | Numerical scale 1-10 | N/A | 0 | N/A | N/A |

## IV Assessment (2 Points)

| IV Assessment | Fluid Type/Rate or Saline Lock |
|---|---|
| **Size of IV:** 20 G<br>**Location of IV:** Lower left posterior forearm.<br>**Date on IV:** 3/22/1024<br>**Patency of IV:** N/A (IV removed)<br>**Signs of erythema, drainage, etc.:** N/A (IV removed)<br>**IV dressing assessment:** N/A (IV removed) | N/A (IV removed) |

## Intake and Output (2 points)

| Intake (in mL) | Output (in mL) |
|---|---|
| 120 mL (orange juice, coffee, and water)<br><br>75% (eggs, oatmeal, and banana) | 300 mL (urine voided)<br><br>No BM |

## Nursing Care

**Summary of Care (2 points)**

**Overview of care:** I briefly introduced my patient before doing a head-to-toe examination. No scheduled medication was needed for administration. Before being released from the hospital, the patient had to show progress in their gait. With the aid of her walker, the patient navigated the hallways. The patient was released at about 1500.

**Procedures/testing done:** No procedures or testing were done.

**Complaints/Issues:** Right elbow pain that was a 3 on a scale of 1-10.

**Vital signs (stable/unstable):** Pulse was high but vital signs were stable.

**Tolerating diet, activity, etc.:** Cardiac diet and physical activity within the patient limit.

**Physician notifications:** The patient was stable enough to be discharged on 3/25/24.

**Future plans for the client:** The patient will continue her cardiac diet and medication regimen back home. Also, follow up with her primary doctor in a couple of days.

**Discharge Planning (2 points)**

**Discharge location:** Home

**Home health needs (if applicable):**

**Equipment needs (if applicable):** Walker when needed.

**Follow up plan:** Consult the primary care provider and cardiologist.

**Education needs:** Continue taking medication regimen, monitor and keep track of blood glucose levels, and do exercises that can be done at home.

<div align="center">

**Nursing Diagnosis (15 points)**
***Must be NANDA approved nursing diagnosis and listed in order of priority***

</div>

| Nursing Diagnosis | Rationale | Interventions (2 per dx) | Outcome Goal (1 per dx) | Evaluation |
|---|---|---|---|---|
| • Include full nursing diagnosis with "related to" and "as evidenced by" components<br>• Listed in order by | • Explain why the nursing diagnosis was chosen | | | • How did the client/family respond to the nurse's actions?<br>• Client |

| priority – highest priority to lowest priority pertinent to this client | | | | response, status of goals and outcomes, modifications to plan. |
|---|---|---|---|---|
| 1. Risk for decreased cardiac output related to medical diagnose of chronic heart failure (CHF) as evidenced by dysrhythmia, SOB, and fatigue (Phelps, 2020). | This nursing diagnose was giving because the is showing signs and symptoms of the heart not pumping enough blood to maintain a cardiac output | 1. Monitor and record LOC, heart rate and rhythm, and blood pressure, and report any abnormal results (Phelps, 2020).<br><br>2. Auscultate for heart and breath sounds. Report abnormal sounds as soon as they develop (Phelps, 2020). | 1. The patient will understand diet, medication regimen, and prescribed activity level (Phelps, 2020). | The patient understands the importance of following a prescribed diet, taking medications as ordered, and maintaining an activity level (Phelps, 2020). |
| 2. Activity intolerance related to imbalance between oxygen supply/demand as evidenced by the patient stating unable to ambulate due to severity of shortness of breath (Phelps, 2020). | This nursing diagnose was given because the patient was several out of breath she could walk. | 1. Gradually increase activity to meet patient's abilities and refer patient to physical therapist (Phelps, 2020).<br><br>2. Teach patient exercises for increasing strength and endurance to improve breathing and promote general physical reconditioning (Phelps, 2020). | 1. Patient will demonstrate skill in conserving energy while carrying out daily activities to tolerance level (Phelps, 2020). | Patient demonstrates an understanding of the relationship between signs and symptoms of activity intolerance and deficits in oxygen supply or use (Phelps, 2020). |
| 3. Risk for | This nursing | 1. Assess | 1. Patient | Patient verbalizes |

| | | | | |
|---|---|---|---|---|
| unstable blood pressure related to dysrhythmia (Phelps, 2020). | diagnose was given because the patient has atrial fibrillation (A fib) which can cause a change in blood pressure. | hemodynamic status including blood pressure, heart rate, oxygen saturation, and respiratory rate for any abnormalities that may indicators for high or low blood pressure (Phelps, 2020).<br><br>2. Provide patient with information regarding modifiable risk factors (Phelps, 2020). | will verbalize modifiable risk factors for high blood pressure (Phelps, 2020). | modifiable risk factors for hypertension (Phelps, 2020). |
| 4. Ineffective health management related to difficulty managing complex treatment regimen as evidence by high blood glucose (Phelps, 2020). | The nursing diagnosis was giving because the patient has a reoccurrences of high blood glucose due to her not monitoring her blood sugar regularly and taking insulin. | 1. Teach patient about disease states and regimens but, more importantly, teach problem-solving skills to ensure active participation in self-health management despite any possible setbacks (Phelps, 2020).<br><br>2. Instruct patient in specific skills needed in monitoring health to | 1. Patient will increase any barriers to optimal self-health management and determine plan to address them (Phelps, 2020). | Patient identifies barriers to develop confidence in managing own health and achieving goal (Phelps, 2020). |

| | | prompt participation in self-care (Phelps, 2020). | | |
|---|---|---|---|---|

**Other References (APA):**

Phelps, L. L. (2020). *Sparks and Taylor's nursing diagnosis reference manual* (11th ed.). Wolters
    Kluwer.

**Concept Map (20 Points):**

## Subjective Data

Shortness of Breath (SOB)
Right elbow pain rate 3 on a scale 1-10
Fatigue

## Nursing Diagnosis/Outcomes

Risk for decreased cardiac output related to medical diagnose of chronic heart failure (CHF) as evidenced by dysrhythmia, SOB, and fatigue.

Activity intolerance related to imbalance between oxygen supply/demand as evidenced by the patient stating unable to ambulate due to severe shortness of breath.

Risk for unstable blood pressure related to dysrhythmia.

Ineffective health management related to difficulty managing complex treatment regimen as evidence by high blood glucose.

Patient will understand diet, medication regimen, and prescribed activity level.

Patient will demonstrate skill in conserving energy while carrying out daily activities to tolerance level.

Patient will verbalize modifiable risk factors for high blood pressure

Patient will increase any barriers to optimal self-health management and determine plan to address them.

## Client Information

68-year-old
Female
162.6 cm (5 ft., 4 in.)
134.5 kg (296 lb 8 oz)
DNR/DNI
Retired
Caucasian

## Nursing Interventions

Monitor and record LOC, heart rate, rhythm, and blood pressure, and report abnormal results.

Auscultate for heart and breath sounds. Report abnormal sounds as soon as they develop.

Gradually increase activity to meet patient's abilities and refer patient to physical therapist.

Teach patient exercises for increasing strength and endurance to improve breathing and promote general conditioning.

Assess hemodynamic status including blood pressure, heart rate, oxygen saturation, and respiratory rate for any abnormalities that may indicators for high or low blood pressure.

Identify the patient's risk factors for high blood pressure, such as additional risk factors.

Teach patient about disease states and regimens but more importantly, teach problem-solving skills to ensure active participation in self-health management despite any possible setbacks.

Instruct patient in specific skills needed in monitoring health to prompt participation in self-care.

## Objective Data

A fib
Low Hgb, Hct, and RBC levels.
High blood glucose level.
High BNP level.
X-ray show acute fracture of right elbow.